AMENDMENTS TO THE SPECIFICATION

Please amend page 10, beginning at line 7, as follows:

3

The lens body of this invention includes that which is comprised only of a ceramic part and that with which, in addition to the ceramic part, a resin layer is provided on the light receiving surface and/or the surface on the opposite side of the light receiving surface (the surface on this side shall also hereinafter be referred to as the "transmitting side surface") of the ceramic part. Some examples where a resin layer is provided are shown schematically in ~~Fig. 2~~ Figs. 2(A) - 2(C). In ~~this Figure~~ these Figures, the white portions are the ceramic parts and the black, filled portions are the resin layers. The upper surfaces are the light receiving surfaces. ~~(1)~~ Fig. 2(A) is an example wherein a resin layer is provided only on the light receiving surface, ~~(2)~~ Fig. 2(B) is an example wherein a resin layer is provided only on the transmitting side surface, and ~~(3)~~ Fig. 2(C) is an example wherein resin layers are provided on both the light receiving surface and the transmitting side surface. This resin layer serves mainly to protect the ceramic part and also as a film to prevent the reflection of light. The provision of a resin layer on the transmitting surface also gives the advantage of facilitating the connection with the supporting part. For example, connection using an organic adhesive agent is made possible. Other performances required of the lens body mainly include high transmittance of infrared light and high visible light shielding ability. Thus a desirable form of coating of the lens by resin must be selected in consideration of the various above-described merits for mounting and required performance levels for practical use.

Please amend page 14, beginning at line 11, as follows:

With the sensor of this invention, the lens body is fixed to the supporting part comprised of resin or metal. If a resin is used in a supporting part, the supporting part, which is integral with the resin layer that covers the ceramic of the lens body, can be formed as mentioned above. In this case, the supporting part may be made integral by using the same resin that is used in the resin layer of the lens body. A connected structure can thereby be formed that is not only inexpensive but is also secure in the bonding strength at the connection. Some examples of these are shown schematically in ~~Fig. 3. (1) through (4)~~ Figs. 3(A) through 3(D) ~~of this Figure show cases~~ where a lens body of the form of ~~(1) of Fig. 2~~ Fig. 2(A) is fixed to a supporting part that is made of metal, with 1 being the lens body, 3 being the metal supporting member, and 5 being the connecting layer that connects these components. ~~Numbers (5)~~ Figs. 3(E) through ~~(7)~~ 3(G) show cases where the supporting part is made integral by a resin, and ~~(5)~~ Fig. 3(E), ~~(6)~~ Fig. 3(F), and ~~(7)~~ Fig. 3(G) correspond respectively to ~~(1)~~ Fig. 3(A), ~~(2)~~ Fig. 3(B), and ~~(3)~~ Fig. 3(C) in terms of the structure of the lens body. The function of fixing and supporting the lens body (robustness) is required first of all, of the supporting part. Furthermore, since the portion that is surrounded by the supporting part is a part through which the transmitted light passes, the function of shielding the external light and radio waves that are noise (this function shall also hereinafter be referred to as the "noise shielding function") is also required. The use of a metal is thus desirable. In the case where the supporting part is to be formed of resin, it is to important to take into consideration such robustness and noise shielding property. Thus different resins or resins that are of the same base material but differ in the added components (filler, etc.)

may be used at the coated part of the lens body and the supporting part or a resin that is reinforced by another material may be used only in the supporting part.

Please amend page 16, beginning at line 6, as follows:

B3

As the metal to be used in the supporting part, it is preferable to have a material having as the main components Fe, Ni, and Co, which are close in thermal expansion coefficient to the ceramic of the lens body, are relatively inexpensive, and are also excellent in environmental resistance. Examples include iron (Fe), 54% Fe - 29% Ni - 17% Co alloy ~~(trade name: cobar)~~, 42 alloy, 46 alloy, and 426 alloy.

Please amend page 17, beginning at line 7, as follows:

B4

In forming such an interposed layer, comprised of metal, directly on the ceramic, a small amount of an active metal or a below-mentioned low-melting-point glass may be added to increase the strength of bonding with the ceramic, or the surface roughness of the connected surface of the ceramic may be controlled to heighten the anchor effect on the connected surface. Examples of an active metal that is added in this case include group IVa metals (Ti, Zr, and Hf) and group Va metals (V, Nb, and Ta). The surface roughness of the ceramic is preferably controlled to be in the range of approximately 0.1 to 1 μ m as Ra as defined in JIS B 0601. This is because below the lower limit, the level of bonding strength tends to be scattered while when the upper limit is exceeded, the thickness of the metal layer tends to be non-uniform. In place of a layer comprised of an abovementioned metal, a layer of a glass (the abovementioned low-melting-point glass), which is lower in melting point than the ceramic of the lens body and the metal material

that comprises the supporting part, may be formed as the interposed layer. As the low-melting-point glass to be used, an appropriate glass is selected in accordance with the combination of the materials of the lens and the supporting part. That is, it is preferable to select a glass material with a melting temperature at which these parts will not be degraded and with a thermal expansion coefficient that is close to that of the ceramic used. For example, if ZnS or spinel ($MgAl_2O_4$) is used in the ceramic and ~~cobal (trade name)~~ is used in the supporting part, a glass in selected with which the working temperature is approximately 300 to 500 ° C and the thermal expansion coefficient is approximately 4 to 10 x 10^{-6}/° C and thus is close to that of the ceramic. Borate glass can be given as an example of a preferable glass. This layer of low-melting-point glass is normally disposed between the interposed layer on the supporting part and the ceramic.

Please amend page 18, beginning at line 10, as follows:

Also as shown schematically in Fig. 4, a hollow cylindrical part 7 (shall also be referred to as "cylindrical part") made of metal and/or resin is preferably provided at the part, between the transmitting side of lens body 1 and detection part 2, through which the transmitted light passes. This cylindrical part is provided with the function of shielding the noise besides the infrared light that is to be detected. Especially required is the function of reflecting or absorbing the infrared rays that are generated by the radiant heat from the supporting part and become noise. Though this part is therefore preferably made from metal, if this part is to be arranged with resin as the base material, it is preferable to take into consideration the types of pigment and filler, etc. that are to be contained in the resin to heighten the function of the resin as mentioned above in the

description of a supporting part made of resin. This cylindrical part may be formed at the same time as the supporting part if the lens body is to be fixed to the supporting part. If in this case, the resin layer of the lens body is of the same resin as the supporting part, the resin layer may be formed at the same time as well. Some structural examples of assemblies arranged in this manner are shown schematically in ~~Fig. 7~~ Figs. 7(A) - 7(C). The symbols in ~~this Figure~~ the Figures correspond to those in Fig. 4. Also, ~~(1)~~ Figs. 7(A) to ~~(3)~~ 7(C) correspond to ~~(5)~~ Fig. 3(E) to ~~(7) of Fig. 3~~ Fig. 3(G) in terms of the form of attachment of the resin layer onto the lens body.

Please amend the Abstract at page 51 as follows:

~~A non-cooled type infrared sensor that uses ceramic in the lens body is provided, wherein the infrared light transmittance of the lens body, which is the light receiving part, the performance of shielding of the visible light that becomes noise, and the performance reliability as a whole are improved and the manufacturing cost of the sensor is reduced.~~

~~The ceramic infrared sensor has a lens body comprised of ceramic, a supporting part, which supports the lens body, and a detection part, which detects the light that has been transmitted through the lens body, and contains a pigment that shields visible light. Also, a ceramic infrared sensor has a lens body comprising a ceramic part and a resin layer that is coated on at least the light receiving part of the ceramic part, a supporting part, which supports the lens body, and a detection part, which detects the light that has been transmitted through the lens body, and the ceramic part and/or resin layer of the lens body contains a pigment that shields visible light.~~

A non-cooled type ceramic infrared sensor having a lens body comprised of ceramic, a supporting part, which supports the lens body, and a detection part, which detects the light that has been transmitted through the lens body, and contains a pigment that shields visible light. Also, a ceramic infrared sensor has a lens body comprising a ceramic part and a resin layer that is coated on at least the light receiving part of the ceramic part, a supporting part, which supports the lens body, and a detection part, which detects the light that has been transmitted through the lens body, and the ceramic part and/or resin layer of the lens body contains a pigment that shields visible light.